

**Mental Health, Developmental Disabilities and
Substance Abuse Related Admissions in Community
Hospital Emergency Departments, Quarterly Report**

**Quarter 3
State Fiscal Year 2008-09**

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NC DMH/DD/SAS

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The Mental Health, Developmental Disabilities, and Substance Abuse Related Admissions in Community Emergency Departments, Quarterly Report, Qtr 3, SFY 2008-09

Report Summary:

The report responds to General Statute 112C-147.1.1 Section 10.49(r) and reports on patterns of admissions of individuals with mental health, substance abuse and developmental disability diagnoses seen in community hospital emergency departments.

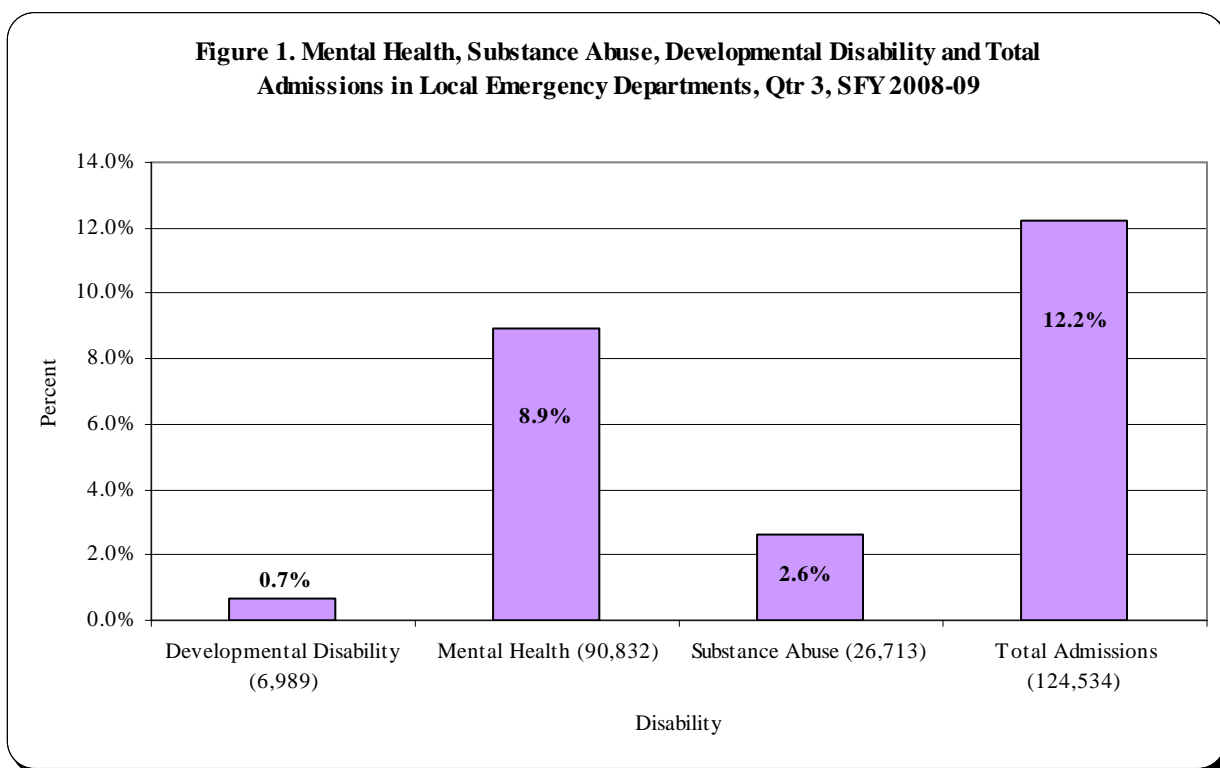
- During the third quarter of the state fiscal year 2008-09, 90,832 individuals with mental health diagnoses, 26,713 individuals with substance abuse diagnoses and 6,989 individuals with developmental disability diagnoses were seen in a community hospital emergency department. While these individuals had a relevant diagnostic code, they were not necessarily seen in the emergency department for a behavioral health/developmental disability issue. These individuals represented 12.2% of the patients seen in emergency departments during the quarter.
- When only those individuals with a 'primary' behavioral health or developmental disability diagnosis are included, there were 20,581 individuals with mental health diagnoses, 6,922 individuals with substance abuse diagnoses and 695 individuals with developmental disabilities diagnoses seen in local community hospital emergency department during this time. These individuals represented only 2.8 % of all emergency department admissions.
- There were significantly more adults compared to adolescents and children with mental health (84,006) and substance abuse (26,049) diagnoses seeking care. However, the numbers of children and adolescents were not negligible. A total of 6,826 children with mental health diagnoses and 664 children with substance abuse diagnoses were seen in local community hospital emergency departments. Also, 3,686 adults and 3,303 children with developmental disability diagnoses were seen in emergency departments during the third quarter.
- There were higher numbers of females (57,091) compared to males (33,741) with mental health diagnoses seeking care in emergency departments, whereas the proportion of men (17421) admitted with substance abuse diagnosis were almost double to that of women (9,292). Within the developmental disabilities category more males (4,014) were seen compared to females (2,975).
- The statewide rate of persons with mental health diagnoses admitted to an emergency department per 10,000 persons in the population was 99.6 for the third quarter of fiscal year 2008-09; the statewide rate for persons with substance abuse diagnosis was 29.3 per 10,000 persons; the statewide rate for persons with developmental disability diagnoses was 7.7 per 10,000 persons.
- The rate of mental health and substance abuse admissions varied widely among the 24 LME catchment areas. Western Highlands LME continue to report the highest rate for emergency department admissions for individuals with a mental health diagnosis (175.2 per 10,000) while Southeastern Regional LME reported the highest rate (45.5 per 10,000) of admissions with a substance abuse diagnosis.

- Guilford Center for Behavioral Health and Developmental Disabilities continues to have the lowest rate of admissions (53.5 per 10,000 population) for individuals with a mental health diagnosis and Wake County Human Services (21.4 per 10,000 population) had the lowest rates for admissions with a substance abuse diagnosis for the quarter.
- Guilford Center also had the lowest rate of developmental disability admissions (2.4 per 10,000 population), while Eastpointe had the highest rate at 11.6 per 10,000 population.
- There were 6,989 admissions for persons with a developmental disability diagnosis during the third quarter, a five-fold increase from the first quarter of 2008-09. This is attributed entirely to the expansion of the diagnostic codes used to categorize developmental disabilities.
- County level data combines the admissions for all three disabilities - The rate of emergency department admissions by county ranged from 28.1 per 10,000 population in Gates County to 298.5 per 10,000 population in McDowell County.
- Disposition information was available on 118,051 of the 124,534 individuals with a behavioral health or developmental disability diagnosis. Disposition information can often be incomplete or misclassified. Of the 118,051 people, 2.7% were admitted to the psychiatric unit of the hospital and 6.0% were transferred to other institutions.

The Mental Health, Developmental Disabilities, and Substance Abuse Related Admissions in Community Hospital Emergency Departments Report provides information on the emergency department admissions for individuals with mental health, substance abuse and developmental disability diagnoses. The document is in response to the General Statute 112C-147.1.1 Section 10.49(r). This report, the seventh, in the series, presents information for the third quarter of fiscal year 2008-09.

The emergency department admissions information gathered through the North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) is received by the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMH/DD/SAS) through a data sharing agreement with the North Carolina Division of Public Health. The data are provided to the DMH/DD/SAS as an aggregate file, which includes the total number of admissions by disability status, age group and gender by LME and total admissions by county. The individuals that are represented in the report are those who had a mental health, substance abuse or developmental disability ICD-9¹ code indicating their diagnosis. Detailed explanation of the data source is available in Appendix B.

2. Emergency Department Admissions



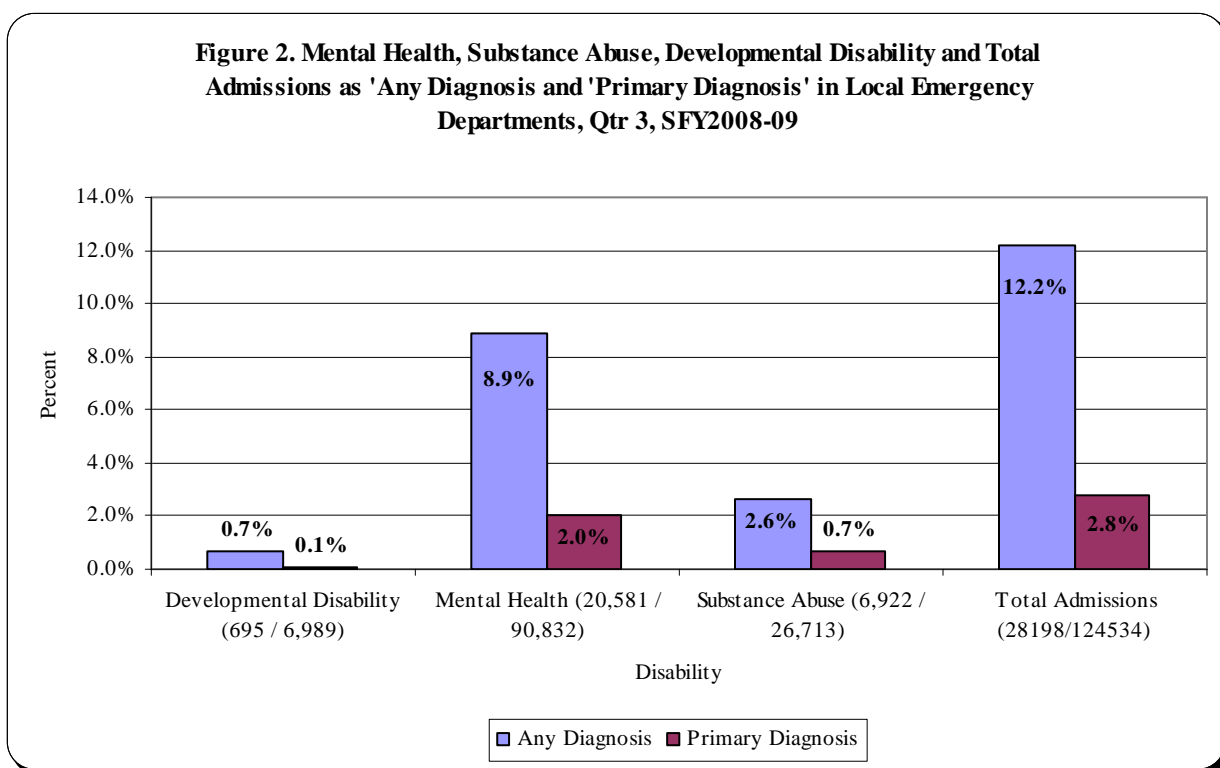
Source: NC DETECT, Qtr 3, SFY 2008-09

The data presented above (Figure 1) show the proportion of individuals who were admitted to a community hospital emergency department with mental health, substance abuse or developmental

¹ The **International Statistical Classification of Diseases and Related Health Problems** (most commonly known by the abbreviation **ICD**) provides codes to classify [diseases](#) and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances and external causes of injury or disease. Every health condition can be assigned to a unique category and given a code, up to six characters long. Such categories can include a set of similar diseases.

disability as any of the listed diagnoses. The percentage is calculated as a proportion of the total admissions for all causes to emergency departments (1,020,645) during the third quarter of SFY 08-09.

The total number of admissions for individuals with a mental health diagnosis during the third quarter of SFY 2008-09 was 90,832. During the same time frame, 26,713 individuals with a substance abuse diagnosis were seen in emergency departments. In the reports for the second and third quarters of SFY 2008-09, the list of ICD-9 codes used to categorize individuals with developmental disabilities was expanded, creating a large increase in the number of individuals who presented to the emergency department with a developmental disability diagnosis during this time frame compared to the report from first quarter of 2008-09 (6989 vs. 216)². The pattern of emergency department admissions for the third quarter was consistent with the pattern displayed over the previous quarters of the fiscal year. Of all emergency department admissions for the quarter, 8.9% and 2.6% were individuals who had a mental health and substance abuse diagnosis respectively. In comparison, the proportion of individuals with developmental disability diagnosis was 0.7 %. The graph also shows the total admissions for individuals with any of the three diagnoses for the quarter to be 12.2%.



Source: NC DETECT, Qtr 3, SFY 2008-09

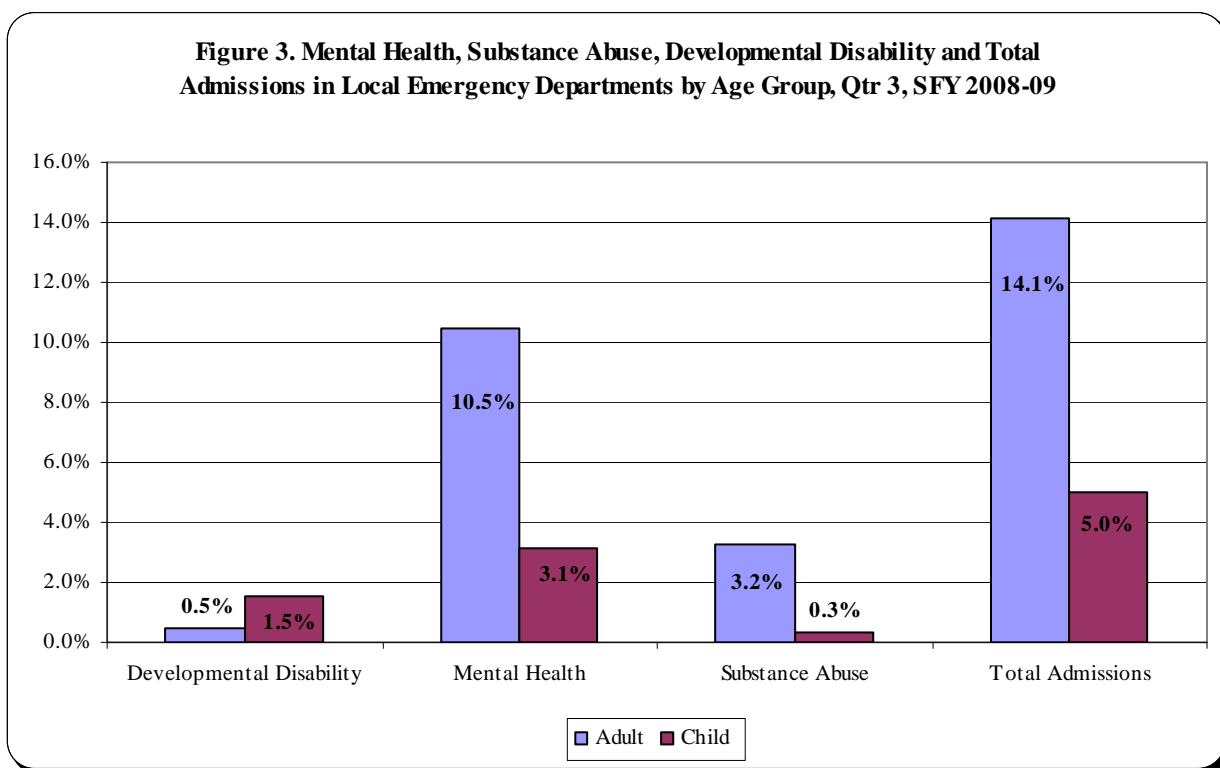
Figure 2, presents a comparison of individuals who had mental health, substance abuse or developmental disability listed as the primary diagnosis for the emergency department visit with those who had these diagnosis as any of the listed diagnoses. The graph demonstrates that the percentage of individuals who had a **primary** behavioral health or developmental disability diagnosis represented only a

² The ICD-9 codes included in the analysis of data for this report are presented in Appendix C.

small percentage of the admissions that had the same ICD-9 codes among ‘any listed’ diagnoses. When only the primary diagnosis is considered, 695 people with a developmental disability, 20,581 people with a mental health disability and 6922 people with a substance abuse disability were admitted to a community hospital emergency department in the State. These individuals represent only 2.8% of all emergency department admissions during the quarter.

All tables and graphs presented in the following pages include individuals who had both ‘primary’ as well as ‘any listed’ mental health, substance abuse or developmental disability diagnoses.

Figure 3 shows the percentage of adult and child admissions for each disability to local emergency departments where mental health, substance abuse and developmental disability were among any of the listed diagnoses.

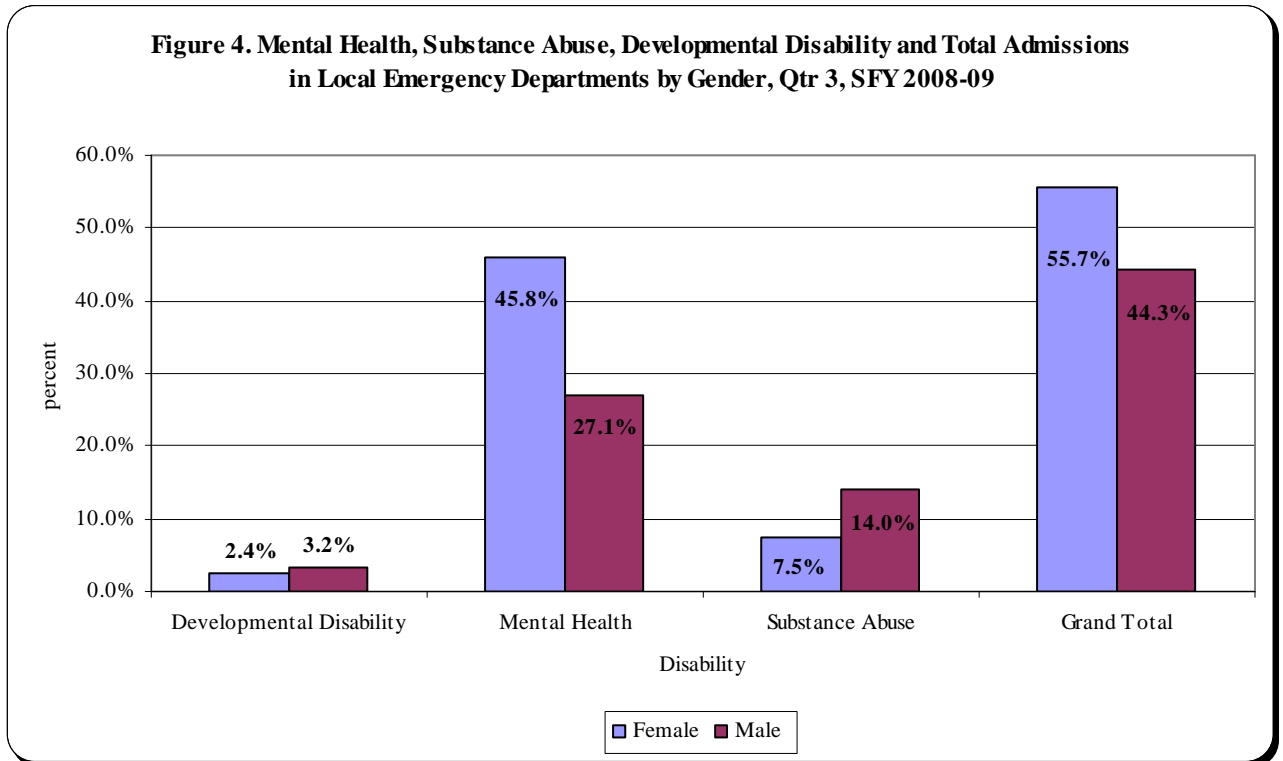


Source: NC DETECT, Qtr 3, SFY 2008-09 Note: Percentages are calculated of total adult admissions and total child admissions separately and not as a proportion of all admissions

A very small percentage of admissions (0.3% or 664) were for children with substance abuse diagnoses. A comparatively larger proportion, 3.1 % or 6,826 of admissions were for children with a mental health diagnosis. There were 84,006 admissions for adults with a mental health diagnosis during the third quarter. 1.5 % of all child admissions and 0.5% of all adult emergency department admissions were individuals with developmental disability diagnosis.

Figure 4 shows the distribution of males and females who had a mental health, substance abuse or developmental disability diagnosis seeking care through local emergency departments. The percentages

are calculated as proportions of gender specific admissions that had a behavioral health or developmental disability diagnosis and the total proportion is a function of all gender specific emergency department admissions. There was a higher number of females who had a mental health diagnosis (57,091) compared to males (33,741) seeking care, whereas the proportion of men (17,421) admitted with a substance abuse diagnosis was almost double that of women (9,292). There was also a higher number of males (4,014) with developmental disability admitted compared to females (2,975).



Source: NC DETECT, Qtr 3, SFY 2008-09; Note: Percentages are calculated as a proportion of gender specific behavioral health and developmental disability admissions

Table 1, shown below, presents the counts and rates of admission in local emergency departments for individuals with mental health, substance abuse or developmental disability diagnoses (any listed diagnosis) by LME during the third quarter of SFY 2008-09. Rates allow comparison of admissions across Local Management Entities (LMEs), which provide services to counties of varied population sizes and composition. The statewide rate of admissions per 10,000 population for individuals with mental health diagnoses was 99.6 persons for the third quarter of fiscal year 2008-09; the statewide rate for individuals with substance abuse diagnoses was 29.3 and that of developmental disability is 7.7 admissions per 10,000 population.

Table 1. Admissions in Local Emergency Departments by Local Management Entity, Qtr 3, 2008-09						
LME	Developmental Disability	Rate of DD Admissions/10,000	Mental Health	Rate of MH Admissions/10,000	Substance Abuse	Rate of SA Admissions/10,000
ACR	244	9.5	3,120	121.4	881	34.3
Albemarle	103	5.6	1,939	104.9	482	26.1
Beacon Center	144	5.9	1,858	75.9	658	26.9
Mental Health Partners	242	10.0	3,381	139.3	757	31.2
CenterPoint	305	7.2	4,411	103.8	1,420	33.4
Crossroads	173	6.6	3,058	116.6	672	25.6
Cumberland	278	9.0	3,209	104.1	1,303	42.3
Durham	185	7.4	2,143	85.2	728	28.9
ECBH	330	8.4	3,724	94.7	1,169	29.7
Eastpointe	337	11.6	3,705	127.0	1,048	35.9
Five County	160	6.9	2,020	87.5	679	29.4
Guilford	111	2.4	2,444	53.5	1,025	22.4
Johnston	152	9.7	1,621	103.3	372	23.7
Mecklenburg	400	4.7	5,271	61.5	2,030	23.7
Onslow-Carteret	241	10.6	2,661	116.8	911	40.0
Orange-Person-Chatham	212	9.5	2,027	91.3	698	31.4
Pathways	266	7.2	4,294	116.0	963	26.0
Piedmont	555	8.0	6,699	96.0	1,812	26.0
Sandhills Center	307	5.8	4,470	84.4	1,463	27.6
Smoky Mountain	339	6.6	5,548	107.7	1,556	30.2
Southeastern Center	276	8.1	3,411	100.6	1,256	37.0
Southeastern Regional	251	9.8	3,625	141.7	1,164	45.5
Wake	680	8.3	6,740	82.0	1,756	21.4
Western Highlands	651	13.1	8,708	175.2	1,727	34.7
Statewide	6,942	7.7	90,087	99.6	26,530	29.3

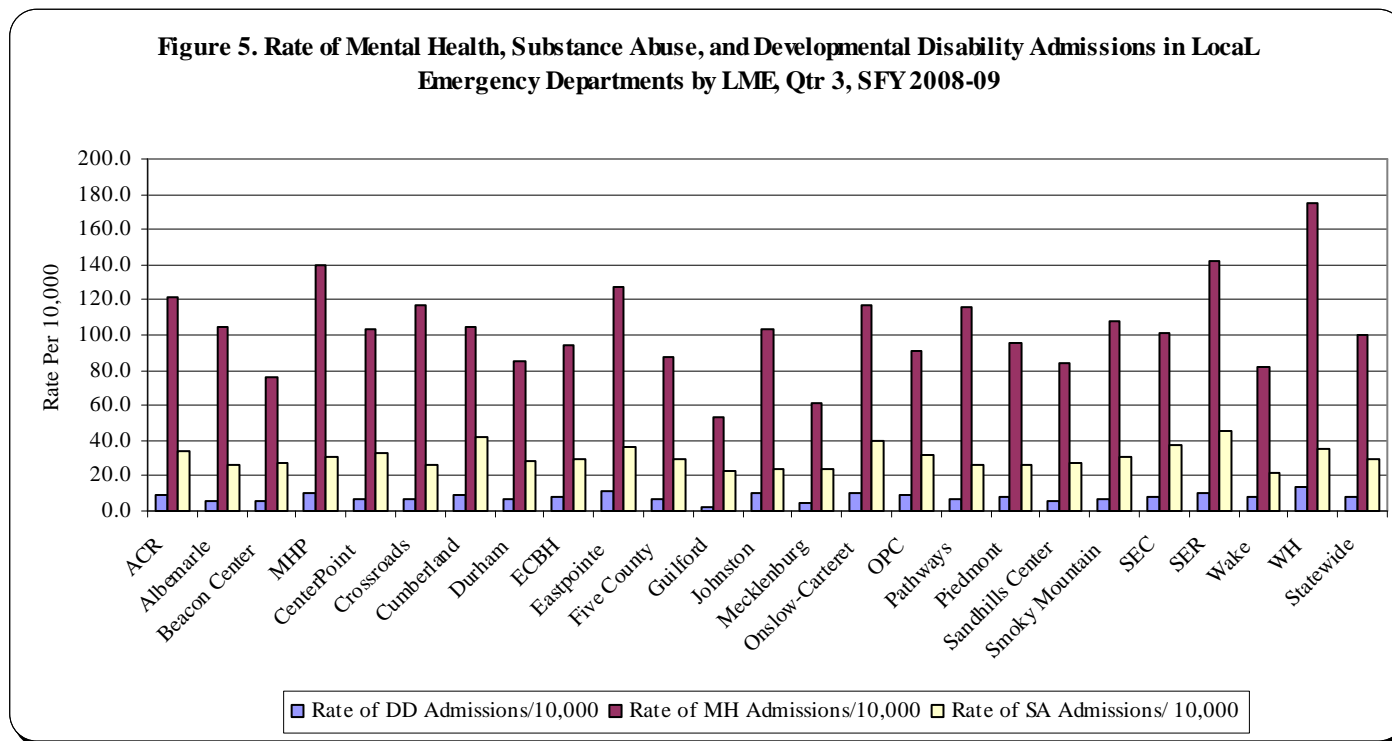
Source: NC DETECT, Qtr 3, SFY 2008-09

Note. LME level totals may differ from statewide estimates due to incompleteness of county level information.

Consistent with data from the second quarter, Western Highlands LME had one of the highest rates of admission (175.2 per 10,000) for individuals with mental health diagnoses while Southeastern Regional LME had the highest rate (45.5) of admissions with substance

abuse diagnoses for the quarter. Guilford Center LME continues to have the lowest rate (53.5 per 10,000 population) of admissions for people with mental health diagnoses and Wake LME (21.4) had the lowest rate of admissions for individuals with substance abuse diagnoses during the quarter. The rate for admissions for persons with developmental disability diagnoses ranged from 2.4 per 10,000 to 11.6 per 10,000, with the statewide rate at 7.7 per 10,000 population.

Figure 5 is a graphical representation of the information presented in Table 1, showing the rate of admissions with mental health, substance abuse and developmental disability diagnoses in emergency departments by Local Management Entity for the third quarter of fiscal year 2008-09.



Source: NC DETECT, Qtr 3, SFY 2008-09

Abbreviations ACR- Alamance-Caswell-Rockingham; MHP-Mental Health Partners, ECBH- East Carolina Behavioral Health, OPC-Orange -Person -Chatham, SEC- Southeastern Center, SER-Southeastern Regional; WH- Western Highlands

Table 2. Emergency Department Admissions by Age Group and Local Management Entity, Qtr 3, SFY 2008-09										
Local Management Entity	Developmental Disability			Mental Health			Substance Abuse			ED Admissions All Causes
	Adult	Child	Total	Adult	Child	Total	Adult	Child	Total	
ACR	109	135	244	2,874	246	3,120	858	23	881	36,176
Albemarle	61	42	103	1,817	122	1,939	459	23	482	19,759
Beacon Center	69	75	144	1,689	169	1,858	639	11	650	32,836
CenterPoint	183	122	305	4,113	298	4,411	1,394	18	1,412	34,756
Crossroads	93	80	173	2,862	194	3,056	660	0	660	32,818
Cumberland	133	145	278	2,832	376	3,208	1,285	12	1,297	28,141
Durham	104	81	185	1,988	154	2,142	705	15	720	48,060
ECBH	162	168	330	3,381	344	3,725	1,141	28	1,169	38,061
Eastpointe	164	173	337	3,379	327	3,706	1,011	36	1,047	33,448
Five County	84	76	160	1,906	120	2,026	669	*	669	51,230
Guilford	77	24	101	2,337	108	2,445	1,008	*	1,008	17,674
Johnston	82	70	152	1,467	154	1,621	360	*	360	29,499
MHP	114	128	242	3,126	256	3,382	725	32	757	47,084
Mecklenburg	266	134	400	4,991	280	5,271	1,991	39	2,030	70,427
Onslow-Carteret	130	111	241	2,445	216	2,661	885	18	903	22,189
OPC	109	103	212	1,861	167	2,028	679	*	679	17,355
Pathways	130	136	266	3,923	372	4,295	944	12	956	44,188
Piedmont	264	290	554	6,114	582	6,696	1,742	69	1,811	74,795
Sandhills Center	130	177	307	4,101	369	4,470	1,421	42	1,463	67,560
Smoky Mountain	174	165	339	5,188	363	5,551	1,520	22	1,542	62,609
SEC	156	120	276	3,181	230	3,411	1,226	30	1,256	36,779
SER	98	153	251	3,299	326	3,625	1,142	13	1,155	43,445
Wake	357	323	680	6,194	544	6,738	1,715	41	1,756	71,491
WH	407	244	651	8,227	481	8,708	1,688	39	1,727	54,271
Statewide	3,656	3,275	6,931	83,295	6,798	90,093	25,867	523	26,390	1,014,651

Source: NC DETECT Qtr 3 SFY 2008-09. Note. LME level totals may differ from statewide estimates due to incompleteness of county level information. Smoky Mountain includes information from the LME formerly known as Foothills. * Cell sizes under 10 have been suppressed to maintain confidentiality. Abbreviations ACR- Alamance-Caswell-Rockingham; MHP-Mental Health Partners, ECBH- East Carolina Behavioral Health, OPC-Orange -Person -Chatham, SEC- Southeastern Center, SER-Southeastern Regional; WH- Western Highlands.

Table 2 presents the counts and rates of admissions for individuals with mental health, substance abuse and developmental disability diagnoses by age group (adult and child) for each of the 24 Local Management Entities. The table also gives the counts for emergency department admissions for all causes by LME catchment area. The total number of emergency department admissions by LME came to 1,014,651³ during the third quarter of the fiscal year.

Table 3 gives the rate of admissions for individuals with any of the three disability diagnoses (mental health, substance abuse and developmental disability) by the county of residence of the individual. The rate of emergency department admissions by county ranged from 28.0 per 10,000 in Lenoir County to 318.7 per 10,000 in McDowell County.

County	Count(n)	Rate Of Behavioral Health & DD Admissions/10,000	County	Count (n)	Rate of Behavioral Health & DD Admissions/10,000
Alamance	2,236	154.1	Jones	147	141.8
Alexander	525	141.7	Lee	537	93.4
Alleghany	261	233.6	Lenoir	585	101.8
Anson	473	188.0	Lincoln	1,236	166.1
Ashe	136	51.7	Macon	296	66.6
Avery	180	98.0	Madison	441	128.8
Beaufort	556	120.2	Martin	527	255.3
Bertie	232	116.9	McDowell	708	298.5
Bladen	475	146.1	Mecklenburg	6,961	78.0
Brunswick	1,498	143.9	Mitchell	222	139.3
Buncombe	5,896	257.0	Montgomery	154	55.5
Burke	1,285	145.2	Moore	863	100.9
Cabarrus	2,901	170.1	Nash	728	77.6
Caldwell	1,296	162.5	New Hanover	2,508	128.9
Camden	84	85.3	Northampton	227	107.1
Carteret	1,435	224.9	Onslow	1,875	109.5
Caswell	378	160.9	Orange	1,454	112.6
Catawba	2,583	166.2	Pamlico	170	131.3
Chatham	447	73.8	Pasquotank	604	144.5
Cherokee	317	115.2	Pender	360	69.0
Chowan	238	161.2	Perquimans	184	141.0

³ LME admissions vary from the state total admissions due to discrepancies regarding information of county of residence. State total ED admissions were 1,014,651 for the third quarter.

County	Count(n)	Rate Of Behavioral Health & DD Admissions/10,000	County	Count (n)	Rate of Behavioral Health & DD Admissions/10,000
Clay	106	100.3	Person	590	155.5
Cleveland	2,192	225.7	Pitt	1,305	84.1
Columbus	796	146.6	Polk	133	69.8
Craven	1,818	186.8	Randolph	1,525	108.5
Cumberland	4,133	131.4	Richmond	571	121.9
Currituck	186	76.3	Robeson	2,562	196.5
Dare	363	105.2	Rockingham	1,185	129.3
Davidson	1,761	111.7	Rowan	1,443	104.9
Davie	371	89.7	Rutherford	1,327	211.0
Duplin	548	102.0	Sampson	1,035	158.7
Durham	2,739	105.6	Scotland	657	177.9
Edgecombe	363	70.8	Stanly	520	87.6
Forsyth	4,504	130.8	Stokes	594	128.0
Franklin	631	109.4	Surry	1,533	208.4
Gaston	1,616	79.1	Swain	203	144.0
Gates	34	28.1	Transylvania	322	103.5
Graham	118	144.3	Tyrrell	20	46.2
Granville	571	101.2	Union	1,526	79.3
Greene	185	87.2	Vance	344	78.8
Guilford	3,233	69.0	Wake	8,274	95.4
Halifax	845	153.6	Warren	144	72.4
Harnett	1,151	105.8	Washington	58	44.1
Haywood	1,308	228.2	Watauga	373	82.7
Henderson	1,221	117.1	Wayne	2,380	205.8
Hertford	100	42.1	Wilkes	578	85.8
Hoke	339	76.1	Wilson	1,151	146.3
Hyde	60	111.3	Yadkin	352	92.3
Iredell	1,691	109.0	Yancey	287	153.1
Jackson	369	99.0	Statewide	110453	119.5
Johnston	1,890	116.2			

Source: NC DETECT, Qtr 3, SFY 08-09

Table 4 shows the disposition of individuals with mental health, substance abuse or developmental disability diagnoses Statewide. Disposition status may often not be appropriately captured or may be incomplete in the emergency department data. Disposition information is only available on 118,051 of the 124,534 individuals with a mental health, substance abuse or developmental disability diagnosis seen in a community hospital emergency department during the third quarter 3 of SFY 2008-09.

Table 4. Disposition of Mental Health, Substance Abuse and Developmental Disabilities Individuals Seen within a Local Emergency Department, Qtr 3, 2008-09												
Disability	Disposition											
Disability	Admitted	Admitted - ICU	Admitted - Psych	Died	Discharged	Left AMA	Left Without Advice	Observation	Other	Transferred	Unknown	Grand Total
Devpt. Disability	1796	30	108	11	4366	37	38	34	18	249	0	6687
Mental Health	25177	372	2188	163	49906	1210	624	651	415	5278	167	86151
Substance Abuse	8143	190	959	31	13151	442	188	227	238	1607	37	25213
Grand Total	35116	592	3255	205	67423	1689	850	912	671	7134	204	118051

Source: NC DETECT, Qtr 3, SFY 08-09;

Note- Disposition 'Admitted' includes hospital floor, isolation bed, CCU, operating room or diagnostic unit; 'Transferred' includes- transfer to prison, jail, general hospital, another type of institution or to home care ; 'Other' category is not clearly defined.

APPENDICES

Appendix A. List of Hospitals Contributing Data to NC DETECT

As of March 5, 2009 there are 111 of 112 (99%) hospitals submitting production-level data on a daily basis to NC DETECT.

County	Town	Hospital
Alamance	Burlington	Alamance
Alexander	Taylorsville	Frye Alexander
Alleghany	Sparta	Alleghany
Anson	Wadesboro	Anson
Ashe	Jefferson	Ashe
Avery	Linville	Charles A. Cannon
Beaufort	Washington	Beaufort
Beaufort	Belhaven	Pungo
Bertie	Windsor	Bertie
Bladen	Elizabethtown	Bladen
Brunswick	Supply	Brunswick
Brunswick	Southport	Dosher
Buncombe	Asheville	Mission
Burke	Morganton	Grace
Burke	Valdese	Valdese
Cabarrus	Concord	Northeast
Caldwell	Lenoir	Caldwell
Carteret	Morehead City	Carteret
Catawba	Hickory	Catawba Valley
Catawba	Hickory	Frye
Chatham	Siler City	Chatham
Cherokee	Murphy	Murphy
Chowan	Edenton	Chowan
Cleveland	Shelby	Cleveland
Cleveland	Kings Mountain	Kings Mountain
Columbus	Whiteville	Columbus
Craven	New Bern	Craven
Cumberland	Fayetteville	Cape Fear Valley
Dare	Nags Head	Outer Banks
Davidson	Lexington	Lexington
Davidson	Thomasville	Thomasville
Davie	Mocksville	Davie
Duplin	Kenansville	Duplin
Durham	Durham	Duke
Durham	Durham	Durham Regional
Edgecombe	Tarboro	Heritage
Forsyth	Winston-Salem	Forsyth
Forsyth	Winston-Salem	NCBH
Franklin	Louisburg	Franklin
Gaston	Gastonia	Gaston
Granville	Oxford	Granville

County	Town	Hospital
Guilford	High Point	High Point
Guilford	Greensboro	Moses Cone
Guilford	Greensboro	Wesley Long
Halifax	Roanoke Rapids	Halifax
Halifax	Scotland Neck	Our Community
Harnett	Dunn	Betsy Johnson
Haywood	Clyde	Haywood
Henderson	Hendersonville	Margaret Pardee
Henderson	Fletcher	Park Ridge
Hertford	Ahoskie	Roanoke Chowan
Iredell	Statesville	Davis
Iredell	Statesville	Iredell
Iredell	Mooresville	Lake Norman
Jackson	Sylva	Harris
Johnston	Smithfield	Johnston
Lee	Sanford	Central Carolina
Lenoir	Kinston	Lenoir
Lincoln	Lincolnton	Lincoln
Macon	Franklin	Angel
Macon	Highlands	Highlands
Martin	Williamston	Martin
McDowell	Marion	McDowell
Mecklenburg	Charlotte	CMC
Mecklenburg	Charlotte	CMC Mercy
Mecklenburg	Charlotte	CMC Pineville
Mecklenburg	Charlotte	CMC Univiversity
Mecklenburg	Charlotte	Presbyterian
Mecklenburg	Huntersville	Presbyterian Huntersville
Mecklenburg	Matthews	Presbyterian Matthews
Mitchell	Spruce Pine	Blue Ridge Regional (Spruce Pine)
Montgomery	Troy	FHS Montgomery
Moore	Pinehurst	FHS Moore
Nash	Rocky Mount	Nash
New Hanover	Wilmington	New Hanover
Onslow	Jacksonville	Onslow
Orange	Chapel Hill	UNC Hospitals
Pasquotank	Elizabeth City	Albemarle
Pender	Burgaw	Pender
Person	Roxboro	Person
Pitt	Greenville	Pitt
Polk	Columbus	St Luke
Randolph	Asheboro	Randolph
Richmond	Rockingham	FHS Richmond
Richmond	Hamlet	Sandhills

County	Town	Hospital
Robeson	Lumberton	Southeastern
Rockingham	Reidsville	Annie Penn
Rockingham	Eden	Morehead
Rowan	Salisbury	Rowan
Rutherford	Rutherfordton	Rutherford
Sampson	Clinton	Sampson
Scotland	Laurinburg	Scotland
Stanly	Albemarle	Stanly
Stokes	Danbury	Stokes Reynolds
Surry	Elkin	Hugh Chatham
Surry	Mt. Airy	Northern Surry
Swain	Bryson City	Swain
Transylvania	Brevard	Transylvania
Union	Monroe	Union
Vance	Henderson	Maria Parham
Wake	Raleigh	Duke Raleigh
Wake	Raleigh	Rex
Wake	Apex	WakeMed Apex
Wake	Cary	WakeMed Cary
Wake	Raleigh	WakeMed North
Wake	Raleigh	WakeMed Raleigh
Washington	Plymouth	Washington
Watauga	Blowing Rock	Blowing Rock
Watauga	Boone	Watauga
Wayne	Goldsboro	Wayne
Wilkes	North Wilkesboro	Wilkes
Wilson	Wilson	Wilson
Yadkin	Yadkinville	Hoots

Appendix B: Data Source

What is NC DETECT?

The North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) is the Web-based early event detection and timely public health surveillance system in the North Carolina Public Health Information Network. NC DETECT uses the CDC's CUSUM algorithms from the Early Aberration Reporting System (EARS) to monitor several data sources for suspicious patterns. The reporting system also provides broader public health surveillance reports for emergency department visits related to hurricanes, injuries, asthma, vaccine-preventable diseases, occupational health and others.

Who develops and manages NC DETECT?

Staff at the UNC Department of Emergency Medicine (UNC DEM), under contract to the North Carolina Division of Public Health (NC DPH) develop and manage NC DETECT. UNC DEM collaborates with NC DPH on all aspects of NC DETECT development.

How is NC DETECT related to NCHESS?

Data from the North Carolina Hospital Emergency Surveillance System (NCHESS) are loaded into NC DETECT (which was formerly known as the North Carolina Bioterrorism and Emerging Infection Prevention System, NC BEIPS). The NC DETECT team at the UNC Department of Emergency Medicine monitors the quality of the NCHESS data and work with hospitals, their vendors and the North Carolina Hospital Association (NCHA) to ensure NC DETECT users have access to the most accurate data possible.

How have North Carolinians benefited from NC DETECT?

With NC DETECT, public health officials at the local, regional and state levels are able to monitor a variety of important public health issues in a secure and timely fashion, including influenza, post-hurricane health issues, injury and violence, and vaccine-preventable disease surveillance. For example, NC DETECT users have monitored illness and injury effects after hurricanes Isabel and Ophelia, analyzed ED use at select hospitals by Katrina evacuees, and uncovered unreported cases of tuberculosis. Before NC DETECT, similar surveillance was either simply not performed, relied on manual, redundant data entry, or had a considerable time lag. A summary of specific [NC DETECT outcomes](#) is also available. Since NC DETECT is designed to uncover suspicious patterns of illness in both human and animal populations, it is a key tool in the early detection of emerging infectious diseases, such as new strains of influenza.

Who pays for NC DETECT?

NC DETECT is funded from federal bioterrorism grants administered through the Centers for Disease Control and Prevention and disbursed by the North Carolina Department of Health and Human Services, Division of Public Health.

For more Information: ncdetect@listserv.med.unc.edu, (919) 843-2361

Appendix C: ICD-9 codes

ICD-9 codes that are used to categorize each of the three disabilities are listed below. The **International Statistical Classification of Diseases and Related Health Problems** (most commonly known by the abbreviation **ICD**) provides codes to classify [diseases](#) and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances and external causes of injury or disease.

ICD code grouping	Description of category
Mental Health	
290.00- 290.99	Dementia/Delusional psychosis
293.00-293.99	Organic delirium/delusions
294.00-294.99	Dementia/Organic brain syndrome
295.00-295.99	Schizophrenia
296.00-296.99	Manic depressive disorder
297.00-297.99	Paranoia
298.00-298.99	Unspecified psychosis
299.00-299.99	Childhood psychosis
300.00-300.99	Neurotic disorders
301.00-301.99	Personality disorder
302.00-302.99	Psychosexual disorders
306.00-306.99	Physiological malfunction from mental disorders
307.00-307.99	Sleeping order/eating disorder
308.00-308.99	Predominant emotional disturbance
309.00-309.99	Brief/prolonged depressive reaction
310.00-312.99	Conduct disorder
313.00-314.99	Emotional disturbance of childhood or adolescence
799.9	Other MH /unknown/unspecified
995.50-995.89	Child/adult abuse/neglect
Substance Use and Abuse	
292.00-292.99	Drug induced psychosis
304.00-304.99	Drug dependence
305.20-305.99	Drug abuse
291.00-291.99	Alcohol-related psychosis
303.00-303.99	Alcohol dependence
305.00-305.03	Alcohol abuse
Developmental Disabilities	
315.00-315.99	Developmental disabilities
V79.0-V79.9	Range of DD early childhood/DD- unspecified
314.01	Hyperkinesias with DD
740-759	Congenital anomalies
317.00	Mild mental retardation
318.00	Moderate mental retardation
318.10	Severe mental retardation
318.20	Profound mental retardation
319.00	Mental retardation, severity unspecified

The DMH/DD/SAS *Mental Health, Developmental Disabilities and Substance Abuse Related Admissions in Community Emergency Departments, Quarterly Report* is published four times a year.

All reports are available on the Division's website:

<http://www.ncdhhs.gov/mhddsas/statspublications/reports/>

Questions and feedback should be directed to:
NC DMH/DD/SAS Quality Management Team

ContactDMHQuality@ncmail.net

Or

(919)-733-0696

